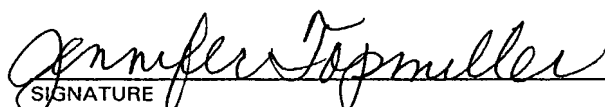


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21839

U.S. APPLICATION NO. (If known, see 37 C.F.R. 1.51) <b>10/089225</b>		INTERNATIONAL APPLICATION NO. PCT/NO00/00326		ATTORNEY'S DOCKET NUMBER 032292-030	
21. <input checked="" type="checkbox"/> The following fees are submitted:				CALCULATIONS	PTO USE ONLY
<b>Basic National Fee (37 CFR 1.492(a)(1)-(5)):</b> Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO and International Search Report not prepared by the EPO or JPO ..... \$1,040.00 (960) International preliminary examination fee (37 CFR 1.482) not paid to USPTO but International Search Report prepared by the EPO or JPO ..... \$890.00 (970) International preliminary examination fee (37 CFR 1.482) not paid to USPTO but international search fee (37 CFR 1.445(a)(2)) paid to USPTO ..... \$740.00 (958) International preliminary examination fee (37 CFR 1.482) paid to USPTO but all claims did not satisfy provisions of PCT Article 33(1)-(4) ..... \$710.00 (956) International preliminary examination fee (37 CFR 1.482) paid to USPTO and all claims satisfied provisions of PCT Article 33(1)-(4) ..... \$100.00 (962)					
<b>ENTER APPROPRIATE BASIC FEE AMOUNT =</b>				\$ 1,040.00	
Surcharge of \$130.00 (154) for furnishing the oath or declaration later than months from the earliest claimed priority date (37 CFR 1.492(e)). 20 <input type="checkbox"/> 30 <input type="checkbox"/>				\$	
Claims	Number Filed	Number Extra	Rate		
Total Claims	5 -20 =	0	X\$18.00 (966)	\$	
Independent Claims	1 -3 =	0	X\$84.00 (964)	\$	
Multiple dependent claim(s) (if applicable)			+ \$280.00 (968)	\$	
<b>TOTAL OF ABOVE CALCULATIONS =</b>				\$ 1,040.00	
Reduction for 1/2 for filing by small entity, if applicable (see below). +				\$ 520.00	-
<b>SUBTOTAL =</b>				\$ 520.00	
Processing fee of \$130.00 (156) for furnishing the English translation later than months from the earliest claimed priority date (37 CFR 1.492(f)). 20 <input type="checkbox"/> 30 <input type="checkbox"/> +				\$	
<b>TOTAL NATIONAL FEE =</b>				\$ 520.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 (581) per property +				\$	
<b>TOTAL FEES ENCLOSED =</b>				\$ 520.00	
				Amount to be refunded:	\$
				charged:	\$
a. <input checked="" type="checkbox"/> Small entity status is hereby claimed. b. <input checked="" type="checkbox"/> A check in the amount of \$ 520.00 to cover the above fees is enclosed. c. <input type="checkbox"/> Please charge my Deposit Account No. 02-4800 in the amount of \$_____ to cover the above fees. A duplicate copy of this sheet is enclosed. d. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 02-4800. A duplicate copy of this sheet is enclosed. <b>NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.</b>					
SEND ALL CORRESPONDENCE TO: Ronald L. Grudziecki BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, Virginia 22313-1404 (703) 836-6620					
				SIGNATURE  NAME Jennifer A. Topmiller	
				50,435 REGISTRATION NUMBER	
				March 28, 2002 DATE	

Patent  
Attorney's Docket No. 032292-030

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of	)	
	)	
Inge Henning JENSSEN	)	Group Art Unit: Unassigned
	)	
Application No.: Unassigned	)	Examiner: Unassigned
	)	
Filed: March 28, 2002	)	
	)	
For: EQUIPMENT FOR STORAGE AND	)	
TRANSPORT OF LIVING FISH	)	
	)	
	)	
	)	

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination of the above-captioned patent application, please enter the following amendment.

**IN THE CLAIMS:**

Please amend claims 1-5 as follows:

1. (Amended) Device for storing and transporting live fish, comprising a fish bag comprising netting equipped at both ends with bag rings, and wherein at each end there being arranged a second netting with purse lines.
2. (Amended) Device for storing and transporting live fish according to claim 1, wherein several fish bags are coupled together through locking rings.

3. (Amended) Device for storing and transporting live fish according to claim 1, wherein at one end of the fish bag there are located towing lines.

4. (Amended) Device for storing and transporting live fish according to claim 1, wherein there is applied at least one brace to the fish bag.

5. (Amended) Device for transporting and storing live fish according to claim 1, wherein around the fish bag there is located a first netting.

Application No. Unassigned  
Attorney's Docket No. 032292-030  
Page 3

**REMARKS**

Entry of the foregoing and examination of the subject application are respectfully requested.

The foregoing amendments are made to place the claims in the preferred U.S. format and to remove multiple claim dependencies. No new matter has been added.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: Jennifer Topmiller  
Jennifer A. Topmiller  
Registration No. 50,435

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
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Date: March 28, 2002

**Attachment to Preliminary Amendment dated March 28, 2002**

**Marked-up Claims -**

1. (Amended) Device for storing and transporting live fish, [characterized in] comprising a fish bag [(1) being] comprising netting equipped at both ends with bag rings [(3)], and wherein at [said ends] each end there being arranged a second netting [(4)] with purse lines [(5,6)].

2. (Amended) Device for storing and transporting live fish according to claim 1, [characterized in that] wherein several fish bags [(1)] are coupled together through locking rings [(7)].

3. (Amended) Device for storing and transporting live fish according to [any of the preceding claims] claim 1, [characterized in that] wherein at one end of the fish bag [(1,1')] there are located towing lines [(8)].

4. (Amended) Device for storing and transporting live fish according to claim 1, [characterized in that] wherein there is applied at least one brace [(9)] to the fish bag [(1,1')].

5. (Amended) Device for transporting and storing live fish according to claim 1, [characterized in that] wherein around the fish bag [(1)] there is located a first netting [(2)].

10/089225

PCT/PTO 28 MAR 2002

Equipment for storage and transport of living fish.

The present invention concerns primarily a device for storage and transport of living fish, where the device is sausage-formed and the transport is preferably performed by this being towed after a boat.

The harvesting of the sea in the form of fishing is the largest and oldest business in this country through history. Today the fish export, disregarding the petrol area, is Norway's largest business money-wise, and the assurance of deliveries of products of high quality is of decisive importance for it to remain a large industry also in the future.

There are dumped large quantities of fish because the capacity of transporting it ashore is not present, and it is also not of the proper quality.

There are several factors interacting to determine the quality of the fish and the fish products when they arrive at the consumers somewhere in the world. When the fish die, a process starts in the fish meat giving it a poorer quality. The quality of the fish meat arriving at the consumer may be improved by waiting for the longest possible time before killing the fish so that the degradation process has been going on for as short a time as possible. The further treatment of the fish in the form of processing, refining, storage and transport should be made as short as possible under the most suitable conditions to maintain the quality.

The delaying of the time for the sacrificing of the fish and thus the starting of the decaying process, is a method that has been used in many connections also in former times through history. In seasons with e.g. a good supply of sails and perhaps a lack of capacity in the receiving country, the containment of fish in enclosures has been

WO 01/24623

PCT/NO00/00326

2

common. This is done by the fish caught alive being imprisoned in a netting bag being anchored until it is fetched and is hoisted into a supply ship or the netting bag is towed to a receiving plant for fish. Fish that are imprisoned in such an enclosure will be standing very cramped under perhaps poor current conditions, and this stresses the fish, something that again reduces the quality and the fish die.

There are used well supply ships for transporting the fish from the netting enclosures. The well supply ships are equipped with tanks into which there is pumped seawater and wherein fish are kept during their transport and reception. Well supply ships is an expensive solution when considering that in many instances a lot of fish die in the netting enclosures before the ships collect them, so the economical result of the fish may not be worthwhile in many cases.

In Norwegian patent no. 20.850 there is disclosed a storage unit for live fish comprising floats in both ends and between these a netting-cage for storing fish. Such a solution is suitable for storing fish, is more expensive than required, and does not represent any good solution with respect to transport. The transport of fish in any such device will have its limitation in how fast it may be transported for the fish to survive, and this is not any economically suitable speed for the transport per se.

Norwegian patent no. 81.500 discloses a container for collecting fish from a trawl and for further transport of the collected live fish to a receiving plant and for shorter storage. The collector is tied to a trawling bag and is not regarded as any suitable way to store and transport fish with respect to maintaining quality and avoid fish death.

In addition to the transporting of fish in a more or less hydrodynamic device, fish are transported in netting bags,



a keeping netting. The towed keeping netting may not exceed a speed of 2-3 knots, something that is very time-consuming. Such solutions are disclosed in Norwegian patents nos. 24.069 and 52.761. The former discloses a  
5 seine bag being kept extended by a floating body, and a boat pulls the entire device. A speed exceeding 2-3 knots will be stressing for the fish and will create conditions increasing the mortality. In no. 52.761 there is disclosed a somewhat similar device, but here it is emphasised that  
10 there exist devices in addition to the seine netting which keep this inflated to avoid it being crushed during transport.

A container for transporting live fish, which also includes a penetrating current of water, appears from Norwegian  
15 patent no. 105.955. A penetrating current which may be reduced by one end partly comprising a solid grating or by one end being funnel-shaped. This to reduce the towing resistance and prevent the death of fish.

The purpose of the present invention is to provide a device  
20 being suited for storage and transport of live fish for transport velocities far exceeding (10-20 knots) what the fish would endure outside the device, but without it disparaging the environment. The invention has as one of its goals a price so that it will be competitive in view of  
25 what exist of transport devices for live fish.

This is achieved by a fish netting being secured in both ends with netting rings, and where at least one end is equipped with one netting and a funnel with a pursing mechanism.

30 Further details of the invention will be apparent from the disclosure infra of an exemplary embodiment thereof under reference to the figures.

Figure 1 depicts a basic form of the invention.

Figure 2 depicts a connection between several units into larger bags.

Figure 3 depicts connective devices for several units into  
5 larger bags.

Figure 4 depicts a detailed view of the outer enclosure according to the invention.

Figure 5 depicts the invention equipped with a brace and an anchoring of the bag.

10 Figure 6 depicts the fish bag during the transport with an additional external netting.

The invention comprises a fish bag 1 being made of strong webbing. If extra strength is wanted during e.g. transport, it is possible to sheath the entire fish bag 1  
15 in a first netting 2. See figure 6. The fish bag 1 is tubular and is equipped with a bag ring 3 at both ends somewhat inside the end to keep the tube extended. To the ends of the fish bag 1 there is located a tubular second netting 4. At the transition between the fish bag 1 and the  
20 second netting 4, there is located a first purse line 5. A second purse line 6 is located in the second end of the second netting 4. Through these purse lines 5,6 the fish bag 1 may be pursed and be closed at the end so that fish do not escape, but it will be possible to determine and  
25 regulate the through-flow of water in the fish bag 1. This is depicted in the figures 1 and 4.

Several fish bags 1 may be connected into larger units as indicated in figure 2. The connection is performed by the bag rings 3 from fish bags 1 being placed adjacent to one  
30 another and being interconnected through a locking ring 7. See figure 3. In the connection there will thus be present such funnel-shaped units, one from each fish bag 1. When the fish bag 1,1' is to be towed behind a boat, extra towing lines 8 between the boat and the bag ring 3 may be  
35 applied.

During transport of fish in the fish bag 1,1' the first  
purse line 5 is closed and the second purse line 6 is  
completely closed so that flow-through of water is made  
suitably rapid and comfortable for the fish. The fish bag  
5 1 may be transported at great speed to its destination  
without the fish becoming injured or dead.

By employing the present invention fish may be towed ashore  
and may be stored live until the reception obtains the  
required capacity or until the market offers the required  
10 price. Furthermore, the fish may be towed alive as close  
as possible to the relevant market prior to it being  
slaughtered.

According to reports from the Ministry of Fishery a larger  
number of receptacles for fish along the coast will be  
15 closed within a short time. This means a longer transport  
for delivery of fish and a larger need for transport of the  
fish alive for maintaining its quality.

When maintaining the fish bag 1,1' in the sea for live  
storage of the fish, there may along the fish bag 1,1' be  
20 located braces 9 in the form of e.g. pipes. See figure 5.  
These may also function as a scaffolding for persons caring  
for the fish. The fish bag 1 may be equipped with current  
providers in the form of motorised propellers to obtain the  
required through-flow of water when the fish bag 1 is  
25 stationary, e.g. in the capacity of a fish farming plant.

## C l a i m s

1. Device for storing and transporting live fish,  
c h a r a c t e r i z e d i n a fish bag (1) being  
equipped at both ends with bag rings (3), and at said ends  
5 there being arranged a second netting (4) with purse lines  
(5,6)
2. Device for storing and transporting live fish according  
to claim 1,  
c h a r a c t e r i z e d i n that several fish bags  
10 (1) are coupled together through locking rings (7).
3. Device for storing and transporting live fish according  
to any of the preceding claims,  
c h a r a c t e r i z e d i n that at one end of the  
fish bag (1,1') there are located towing lines (8).
- 15 4. Device for storing and transporting live fish according  
to claim 1,  
c h a r a c t e r i z e d i n that there is applied at  
least one brace (9) to the fish bag (1,1').
5. Device for transporting and storing live fish according  
20 to claim 1  
c h a r a c t e r i z e d i n that around the fish bag  
(1) there is located a first netting (2).

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(74) Agent: OSLO PATENTKONTOR AS; P.O. Box 7007 M, N-0306 Oslo (NO).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

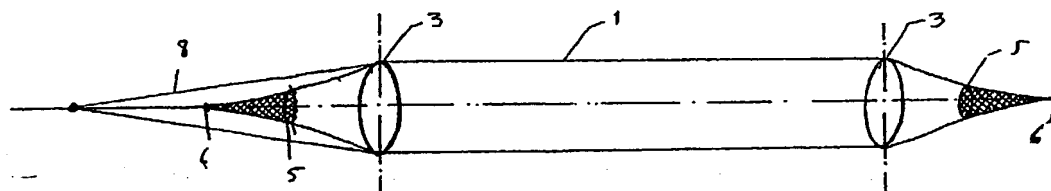
(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— With international search report.

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: EQUIPMENT FOR STORAGE AND TRANSPORT OF LIVING FISH



(57) Abstract: A fish bag (1, 1') comprising a netting with bag rings (3) and at the end a second netting (4) with purse lines (5, 6) and a towing line (9). One or more braces (9) and locking rings (8) to connect several fish bags (1) into larger units.

WO 01/24623 A1

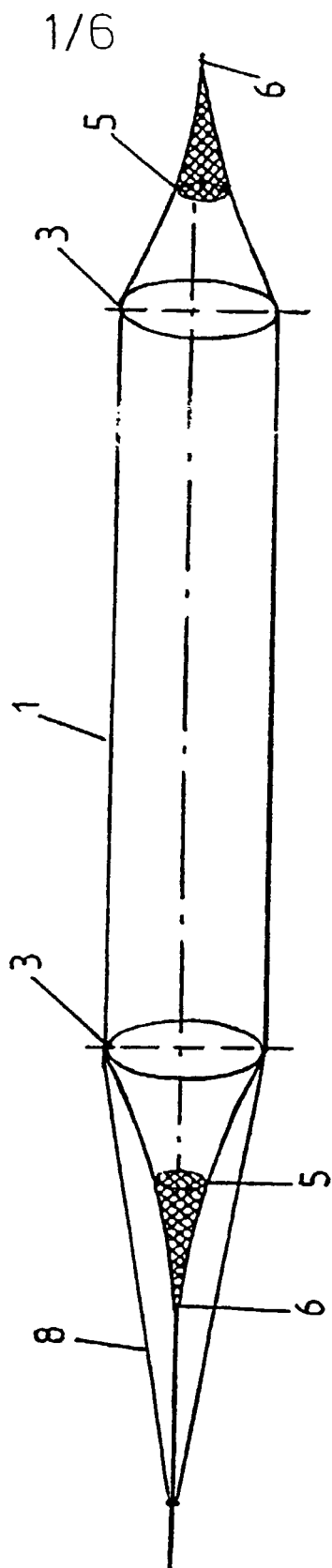


Fig. 1

2/6

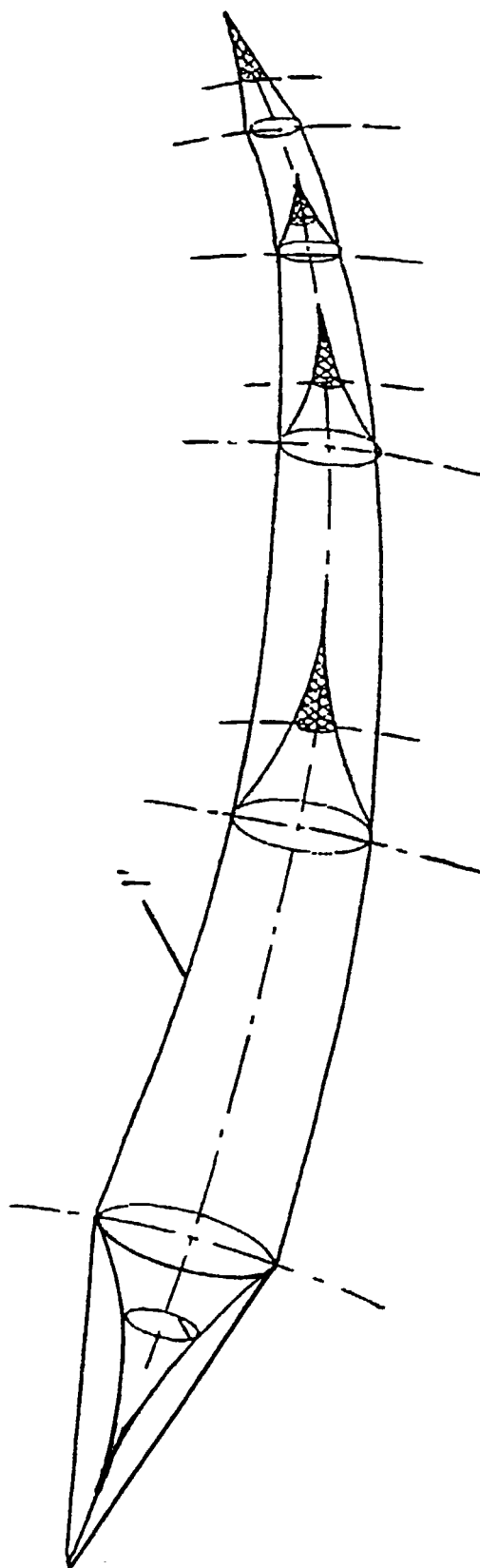
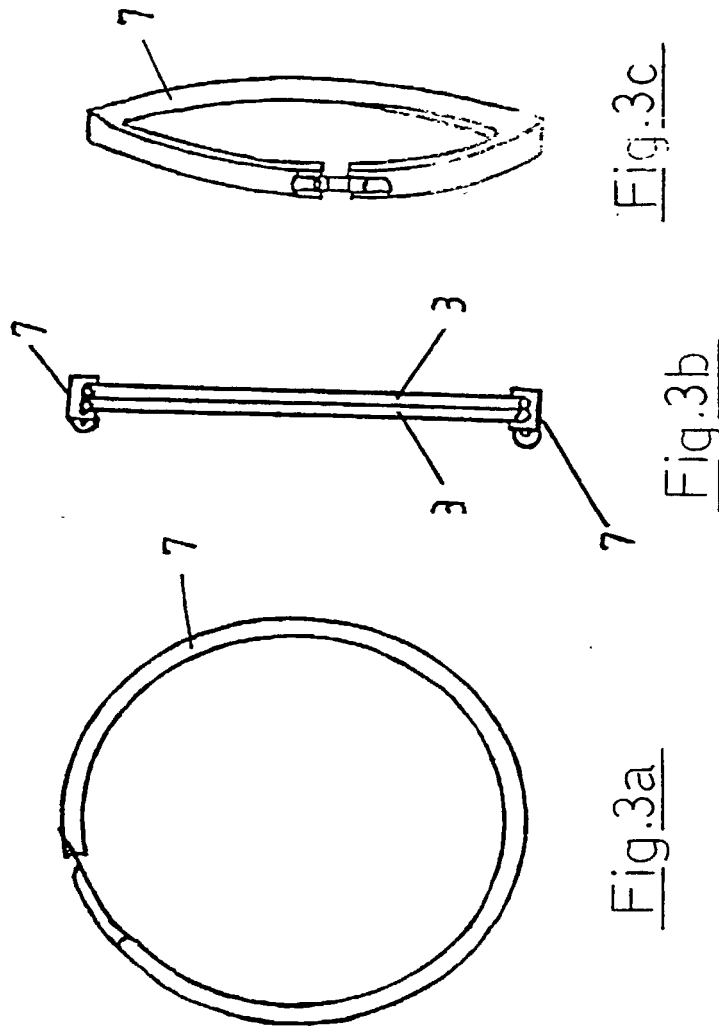


Fig.2

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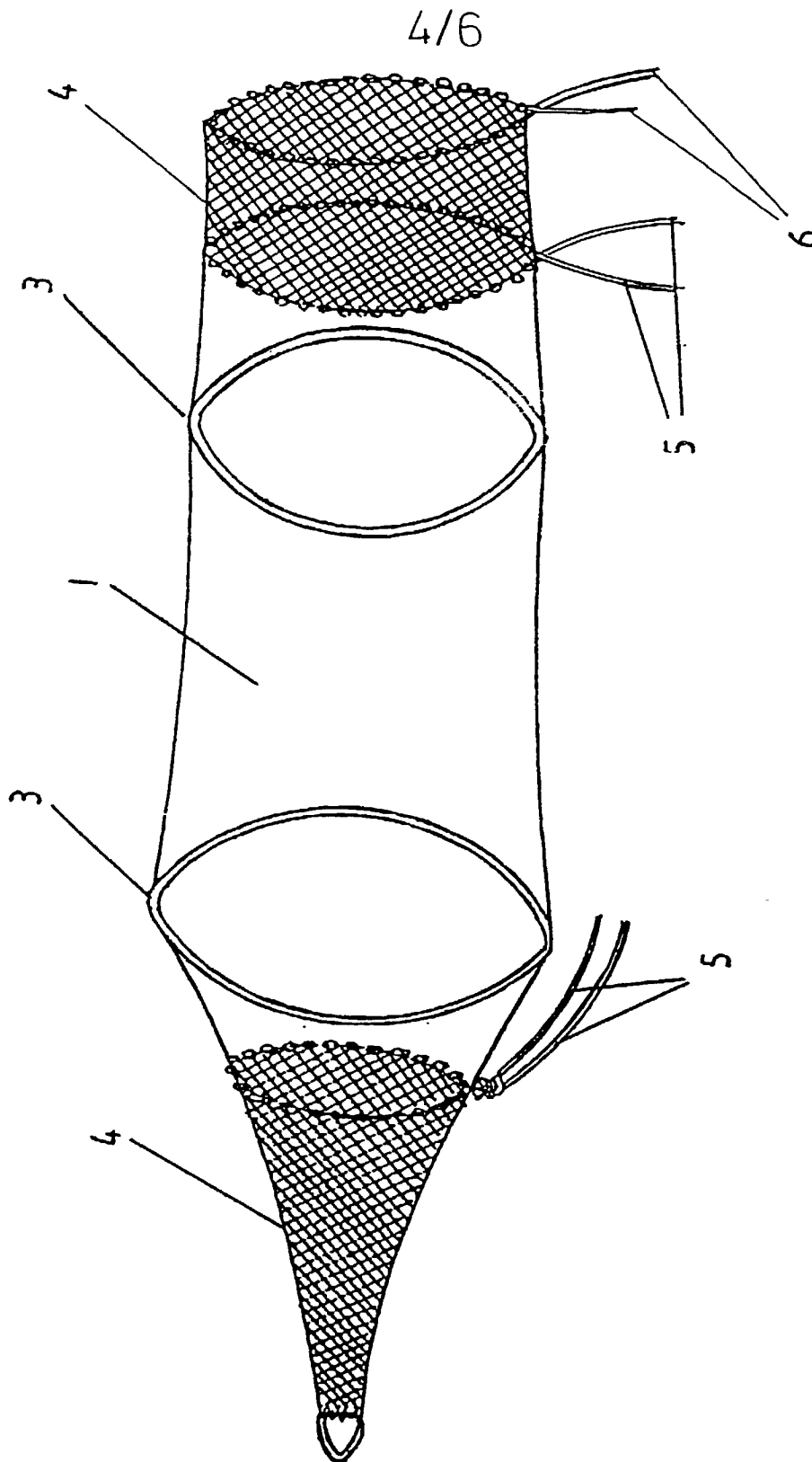
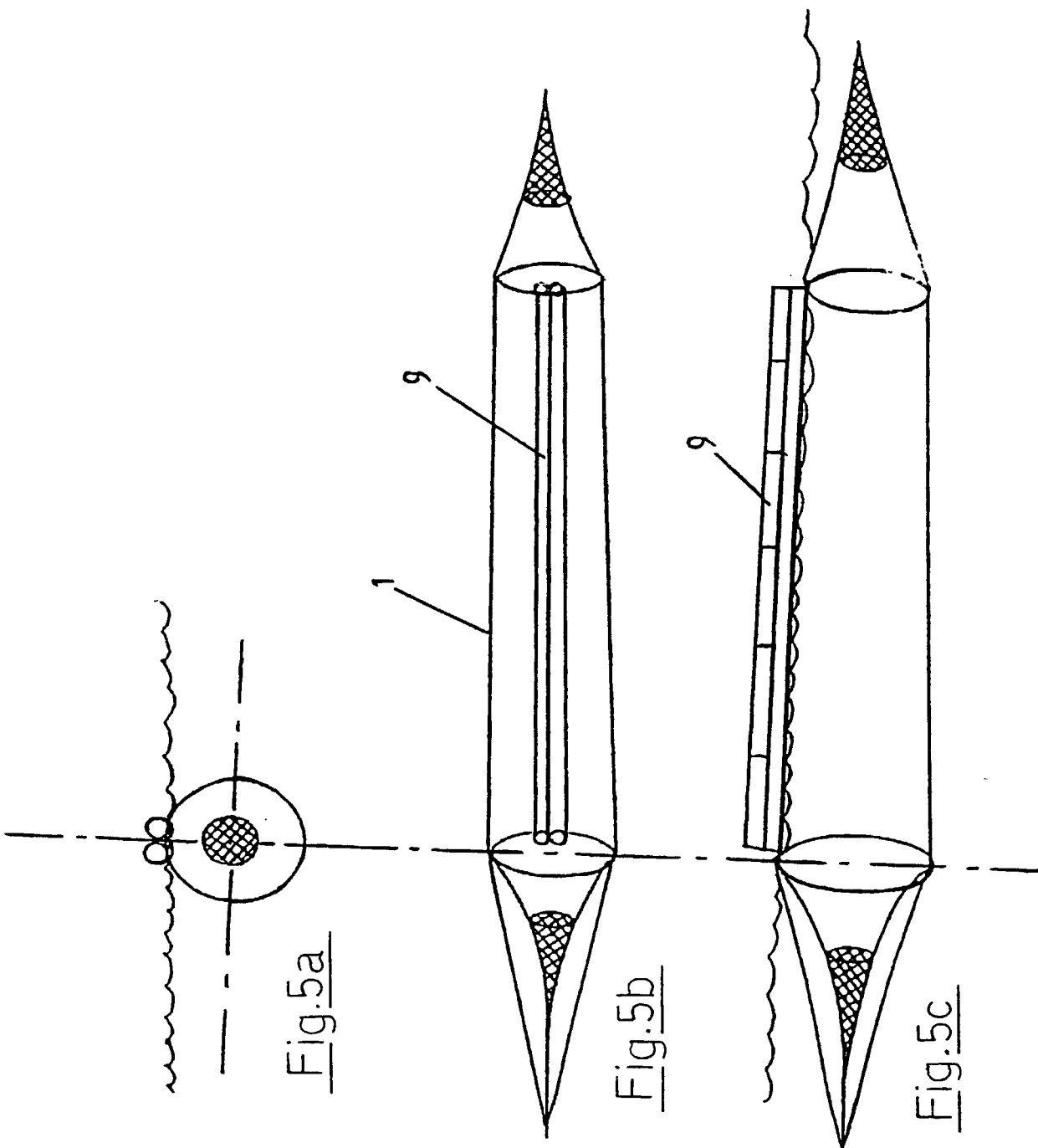


Fig. 4

5/6



6/6

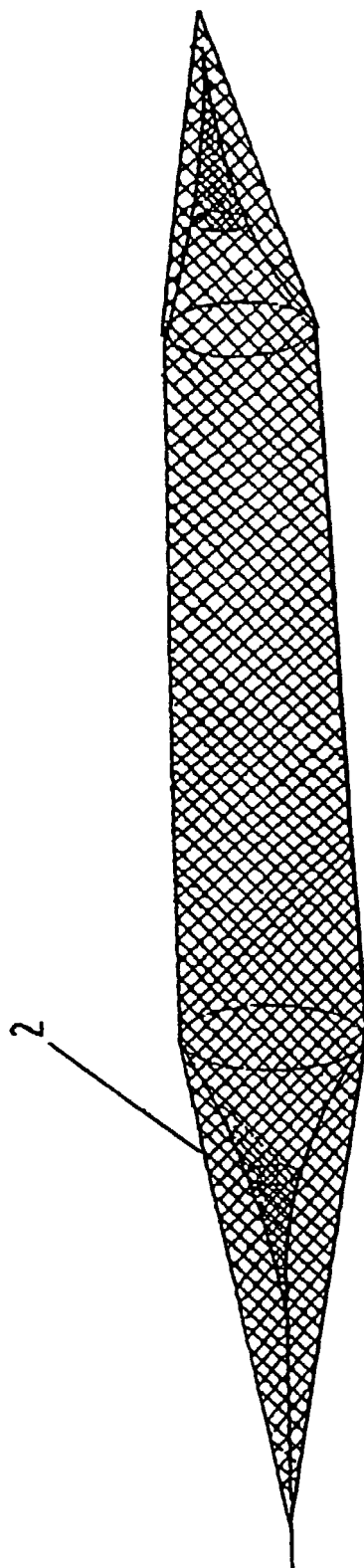


Fig. 6

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<b>DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION</b> (37 CFR 1.63)	<b>Attorney Docket Number</b>	OSL-005
	<b>First Named Inventor</b>	Jenssen
	<b>COMPLETE IF KNOWN</b>	
	<b>Application Number</b>	10 / 089,225
	<b>Filing Date</b>	10/04/2000 (I/A filing date)
	<b>Group Art Unit</b>	
<input type="checkbox"/> Declaration Submitted with Initial Filing	<b>OR</b>	<input checked="" type="checkbox"/> Declaration Submitted after Initial Filing (surcharge (37 CFR 1.16 (e)) required)
<b>Examiner Name</b>		

As a below named inventor, I hereby declare that:

My residence, post office address, and citizenship are as stated below next to my name

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**EQUIPMENT FOR STORAGE AND TRANSPORT OF LIVING FISH**

the specification of which (Title of the Invention)

☐ is attached hereto

**OR**

☒ was filed on (MM/DD/YYYY) **10/04/2000** as United States Application Number or PCT International Application Number **NO00/00326** and was amended on (MM/DD/YYYY) (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. 119(a)-(d) or 365(b) of any foreign application(s) for patent or inventor's certificate, or 365(a) of any PCT international application which designated at least one country other than the United States of America, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or of any PCT international application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application Number(s)	Country	Foreign Filing Date (MM/DD/YYYY)	Priority Not Claimed	Certified Copy Attached?	
				YES	NO
19994839	Norway	10/04/1999	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet PTO/SB/02B attached hereto

I hereby claim the benefit under 35 U.S.C. 119(e) of any United States provisional application(s) listed below

Application Number(s)	Filing Date (MM/DD/YYYY)

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[Page 1 of 2]

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## DECLARATION — Utility or Design Patent Application

I hereby claim the benefit under 35 U.S.C. 120 of any United States application(s), or 365(c) of any PCT international application designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. 112, I acknowledge the duty to disclose information which is material to patentability as defined in 37 CFR 1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

U.S. Parent Application or PCT Parent Number	Parent Filing Date (MM/DD/YYYY)	Parent Patent Number (if applicable)

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As a named inventor, I hereby appoint the following registered practitioner(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: ☒ Customer Number 003897 → ☐ Place Customer Number Bar Code Label here

Name	Registration Number	Name	Registration Number
Thomas Schneck	<u>24,518</u>	David M. Schneck	<u>43,094</u>
Mark Protsik	<u>31,788</u>	Gina McCarthy	<u>42,986</u>
John P. McGuire, Jr.	<u>41,984</u>		

☐ Additional registered practitioner(s) named on supplemental Registered Practitioner Information sheet PTO/SB/02C attached hereto

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ZIP	<u>95109-0005</u>		
Country	<u>USA</u>	Telephone	<u>408/297-9733</u>
Fax	<u>408/297-9748</u>		

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. 1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name of Sole or First Inventor:		<input type="checkbox"/> A petition has been filed for this unsigned inventor	
Given Name (first and middle (if any))		Family Name or Surname	
<u>1-00 Inge Henning</u>		<u>Jenssen</u>	
Inventor's Signature	<u>Inge Henning Jenssen</u>	Date	<u>10/16-2008</u>
Residence: City	<u>Tromso</u>	State	
Country	<u>Norway</u>	Citizenship	<u>Norway</u>
Post Office Address	<u>Kveldroveien 9</u>		
Post Office Address			
City	<u>Tromso</u>	State	
ZIP	<u>N-9007</u>	Country	<u>Norway</u>

☐ Additional inventors are being named on the supplemental Additional Inventor(s) sheet(s) PTO/SB/02A attached hereto